

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for power control in a communication system (100) including a transceiver node (122) capable of communicating with multiple mobile terminals (110), comprising the ~~steps-acts~~ of:

receiving, at the transceiver node, a transmitter power change request from one of the mobile terminals over a wireless connection;

determining, at the transceiver node, at least one power control parameter for the connection based on a current total transmitter power of the transceiver node, ~~the power control parameter serving to modify the transmitter power change request while providing a power increase for the connection in a manner to provide smooth transitional behavior as the current total transmitter power of the transceiver node approaches a maximum total transmitter power value;~~ and

distributing transmitter power to the connection in accordance with the determined power control parameter.

2. (Currently Amended) The method of claim 1, wherein the current total transmitter power represents substantially all downlink power resources, common and connection-specific, used at the transceiver node (122) at a particular point of time.

3. (Currently Amended) The method of claim 1, further comprising the ~~step-act~~ of measuring the current total transmitter power at the transceiver node (122).

4. (Currently Amended) The method of claim 1, wherein the determining ~~step-act~~ is further based on a current connection-specific transmitter power for the connection.

5. (Original) The method of claim 4, wherein the total transmitter power is a downlink carrier power and the connection-specific transmitter power is a downlink code power.
6. (Currently Amended) The method of claim 1, wherein the determining ~~step-act~~ is further based on connection-specific information indicating the degree of priority associated with the connection.
7. (Original) The method of claim 6, wherein the connection-specific information comprises information selected from the group of: mobile type, mobile class, subscription class, connection time, transmitted data amount, data amount in buffer, packet length, packet type, time since last packet, block error statistics, and block retransmission statistics.
8. (Original) The method of claim 1, wherein the power control parameter is related to a maximum value of the connection-specific transmitter power.
9. (Original) The method of claim 1, wherein the power control parameter is directly or indirectly related to a power change rate of the connection-specific transmitter power.
10. (Original) The method of claim 9, wherein the power control parameter is related to a probability of grant.
11. (Original) The method of claim 9, wherein the power control parameter is related to a power change step size.
12. (Currently Amended) The method of claim 1, comprising the ~~steps-acts~~ of combining, at the transceiver node-~~(122)~~, at least two power control parameters based on different input parameters into an aggregate power control parameter; and using the aggregate power control parameter for distributing the connection-specific transmitter power in the distributing ~~stepact~~.

13. (Currently Amended) The method of claim 1, wherein the determining ~~step-act~~ involves executing a predetermined power control function presenting a smooth transitional behavior as the current total transmitter power of the transceiver node ~~(122)~~ approaches a maximum total transmitter power value.

14. (Currently Amended) The method of claim 1, wherein the determining ~~step-act~~ involves deciding the power control parameter based on a predetermined threshold value for the total transmitter power.

15. (Currently Amended) The method of claim 1, wherein the determining ~~step-act~~ is based on current and previous values of the total transmitter power.

16. (Currently Amended) A transceiver node ~~(122)~~ capable of configured to communicate ~~communicating~~ with multiple mobile terminals ~~(110)~~ in a communication system ~~(100)~~ with means for power control, comprising means for receiving a transmitter power change request from ~~including~~ one of the mobile terminals ~~which is involved in a connection and which sends a transmitter power change request to the transceiver node~~ over a wireless connection; the transceiver node being further configured to determine means for determining at least one power control parameter for the connection based on a current total transmitter power of the transceiver node; and means for distributing to allocate transmitter power to the connection in accordance with the determined power control parameter, the power control parameter serving to modify the transmitter power change request while providing a power increase for the connection in a manner to provide smooth transitional behavior as the current total transmitter power of the transceiver node approaches a maximum total transmitter power value.

17. (Currently Amended) The transceiver node of claim 16, wherein the current total transmitter power represents substantially all downlink power resources, common and connection-specific, used at the transceiver node ~~(122)~~ at a particular point of time.

18. (Currently Amended) The transceiver node of claim 16, ~~further comprising means for determining wherein the node is further configured to determine the power control parameter based on a current connection-specific transmitter power for the connection.~~

19. (Currently Amended) The transceiver node of claim 18, ~~wherein the node is further configured to measure further comprising means for measuring the total transmitter power and the connection-specific transmitter power.~~

20. (Currently Amended) The transceiver node of claim 16, ~~wherein the node is further configured to determine further comprising means for determining the power control parameter based on connection-specific information indicating the degree of priority associated with the connection.~~

21. (Original) The transceiver node of claim 16, wherein the power control parameter is related to an item selected from the group of a maximum value of the connection-specific transmitter power, a probability of grant, and a power change step size.

22. (Original) The transceiver node of claim 16, comprising
means for combining at least two power control parameters based on different input parameters into an aggregate power control parameter; and
means for using the aggregate power control parameter for adjustments of connection-specific transmitter power.

23. (Currently Amended) The transceiver node of claim 16, ~~wherein the node is further configured to execute wherein the means for determining involves means for executing a~~

predetermined power distribution function presenting a smooth transitional behavior as the current total transmitter power of the transceiver node (422) approaches a maximum total transmitter power value.

24. (Currently Amended) The transceiver node of claim 16, ~~wherein the node is further configured to decide wherein the means for determining involves means for deciding the power control parameter based on a predetermined threshold value for the total transmitter power.~~

25. (Original) The transceiver node of claim 16, comprising a base station unit.

26. (Currently Amended) A communication system (400) provided with means for power control and including a transceiver node (422) capable of communicating with multiple mobile terminals (410), comprising

means for receiving, at the transceiver node, a transmitter power change request from one of the mobile terminals over a wireless connection;

means for determining at least one power control parameter for the connection based on a current total transmitter power of the transceiver node, ~~the power control parameter serving to modify the transmitter power change request while providing a power increase for the connection in a manner to provide smooth transitional behavior as the current total transmitter power of the transceiver node approaches a maximum total transmitter power value;~~ and

means for distributing transmitter power to the connection in accordance with the determined power control parameter.

27. (Currently Amended) The communication system of claim 26, wherein the current total transmitter power represents substantially all downlink power resources, common and connection-specific, used at the transceiver node (422) at a particular point of time.

28. (Original) The communication system of claim 26, further comprising means for determining the power control parameter based on a current connection-specific transmitter power for the connection.

29. (Original) The communication system of claim 26, further comprising means for determining the power control parameter based on connection-specific information indicating the degree of priority associated with the connection.

30. (Currently Amended) The communication system of claim 29, further comprising means for transmitting the connection-specific information from a network-based control unit ~~(124)~~ of the communication system to the transceiver node ~~(122)~~.

31. (Original) The communication system of claim 26, wherein the power control parameter is related to an item selected from the group of a maximum value of the connection-specific transmitter power, a probability of grant, and a power change step size.

32. (Original) The communication system of claim 26, being selected from the group of: a Code Division Multiple Access (CDMA) system, a Wideband Code Division Multiple Access (WCDMA) system, an Orthogonal Frequency Division Multiplexing (OFDM) system, and a system using Multi Carrier Power Amplifiers (MCPA).